

52



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| STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | EXAMINER AGUSTIN, PETER VINCENT | |
| | | | ART UNIT 2652 | PAPER NUMBER |

DATE MAILED: 05/07/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,277

Applicant(s)

EOM ET AL.

Examiner

Peter Vincent M Agustin

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 6,7,19-21 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-18 and 22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in Paper No. 7 is acknowledged. The traversal is on the ground(s) that serious burden has not been shown. This is not found persuasive because serious burden has been shown by different classification of the elected invention Group I, see MPEP 803.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 6, 7, 19-21 & 23 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "sector number field" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Art Unit: 2652

5. Figure 5A is objected to because the box labeled "INDICATING THAT NEXT SECTOR IS LINKING LOSS AREA" should be --INDICATING THAT CURRENT SECTOR IS LINKING LOSS AREA-- as described in the specification.

Claim Objections

6. Claim 10 objected to because it recites the limitation "said data type identification information field" which should be --the data type identification information area--.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 2-5 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 is indefinite as it is not clear if it is limited to "linking data" and/or "dummy data". A statement regarding an intended use does not positively recite claim structure or functionally related signals recorded ^{thereon} ~~therefrom~~. Claims 3-5 are rejected because they are dependent upon rejected base claim 2.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 2, 10-18 rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (hereafter Lee) (US 6,442,128).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

In regard to claim 1, Lee discloses a recording medium having sectors where data is recorded (figure 1), wherein each sector has a data identification area (b31-b0), in which information identifying the type of data recorded in the sector is recorded, and the data identification area indicates whether the data recorded in the sector is linking data (b25).

In regard to claim 2 the intended use does not limit recording medium structure or signals recorded thereon that are functionally related to the medium. Lee discloses all positively recited structure & functionally related signals, i.e., the “data identification area that indicates whether data is linking data”.

In regard to claim 10, Lee discloses that the data type identification information field comprises a sector information field (b31-b24) and a sector number field (b23-b0).

In regard to claim 11, Lee discloses that sector information field comprises a sector format type field (b31), a tracking method field (b30), a reflectance field (b29), a reserve field (b28), an area type field (b27-b26), a data type field (b25) and a number-of-layers field (b24).

Art Unit: 2652

In regard to claim 12, Lee discloses that the sector format type information (b31) indicates a constant linear velocity (CLV) or zone constant linear velocity (ZCLV) as follows: a first type of bit (0) indicates CLV format type; and a second type of bit (1) indicates ZCLV format type, specified for Rewritable discs.

In regard to claim 13, Lee discloses that the tracking method information (b30) indicates pit tracking or groove tracking as follows: a first type of bit (0) indicates pit tracking; and a second type of bit (1) indicates groove tracking, specified for Rewritable discs.

In regard to claim 14, Lee discloses that the reflectance information (b29) indicates whether or not reflectance exceeds 40% as follows: a first type of bit indicates reflectance is greater than 40% (0); and a second type (1) indicates reflectance is less than or equal to 40%.

In regard to claim 15, Lee discloses that reserve information (b28) indicates a reserve bit.

In regard to claim 16, Lee discloses that the area type information (b27-b26) indicates a data area, a lead-in area, a lead-out area, or a middle area for a read-only disc as follows: 00b indicates data area; 01b indicates lead-in area; 10b indicates lead-out area; and 11b indicates a middle area of a read-only disc.

In regard to claim 17, Lee discloses that the data type information (b25) indicates read-only area, or the linking data as follows: a first type of bit (0) indicates a read-only area; and a second type of bit (1) indicates a linking area.

In regard to claim 18, Lee discloses that the layer number information (b24) indicates the number of layers in a single layer disc or a dual layer disc as follows: a first type of bit (0) indicates layer 0 of a dual layer disc or a single layer disc; and a second type of bit (1) indicates layer 1 of a dual layer disc.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2-5, 8, 9 & 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Kuroda et al. (hereafter Kuroda) (US 6,252,838).

For a description of Lee, see the rejection above. However, Lee does not disclose that if the linking data is recorded in the sector, the data in the sector is replaced with dummy data and the dummy data is reproduced.

In regard to claims 8 & 22, Kuroda (see abstract) discloses an information recording apparatus including a unit for applying a predetermined processing to record information divided into error correction units and generating processed record information including a plurality of record units, which corresponds to the claimed checking unit; and a unit for recording the processed record information on an information recording medium, and a unit for recording predetermined dummy information on the information recording medium, which corresponds to the claimed replacing unit.

In regard to claims 2 & 9, Kuroda (see abstract) discloses the presence of dummy data in a linking area to effectively perform distinct consecutive recording operations. It would have been obvious to one of ordinary skill in the art at the time of invention by the applicant to have added the dummy data of Kuroda to the linking area of Lee, the motivation being to effectively perform distinct consecutive recording operations.

Art Unit: 2652

Furthermore, in regard to claim 5, Kuroda discloses using 32KB to a dummy data area (see column 2, line 11), but does not disclose using 0 kb (claim 3) or 2 kb (claim 4). At the time of invention by the applicant, it would have been obvious to one of ordinary skill in the art to have used 0kb or 2kb linking because applicant has not discloses that these values provide an advantage, are used for a particular purpose, or solve a stated problem, and the invention would have performed equally well with either 0kb, 2kb, or 32kb taught by Kuroda because these values are functional equivalents for the specific amount of data in a dummy field.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ohmori et al. (US 5,408,478) discloses a reproduction apparatus which can perform error correction decoding processing which allows data at a linking portion of linking recording to be regenerated as much as possible to restrict the invalid data area at the linking portion to a minimum.

Osada et al. (US 6,477,127) discloses a recording/playback apparatus capable of carrying out linking on an optical disk.

Hashimoto (US 6,538,964) discloses an optical recording method and apparatus for recording a link part according to an external link method.

Takahashi (US 6,560,181) shows on the front page a sector information field and a data field number of a data identification region.

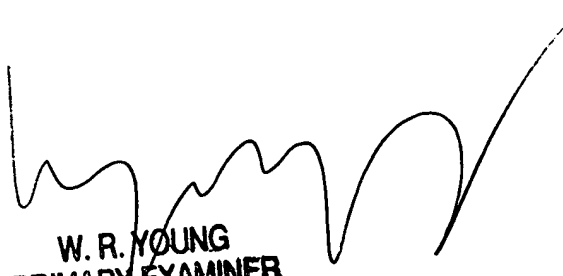
Art Unit: 2652

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is (703) 305-8980. The examiner can normally be reached on Monday thru Friday 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PVA
04/23/2004



W. R. YOUNG
PRIMARY EXAMINER